

Claims

1. A pigment, comprising
(A) optionally a layer consisting of a metal,
5 (B) at least one layer, which is located between the layers (A) and (C), if a layer (A) is present, and consists of the metal, silicon (Si) and oxygen (O), and
(C) optionally a layer consisting of SiO_2 on layer (B), wherein $0.70 \leq z \leq 2.0$, especially $1.10 \leq z \leq 2.0$, more especially $1.40 \leq z \leq 2.0$.
- 10 2. A pigment according to claim 1, comprising
(B) at least one layer, which consists of the metal, silicon (Si) and oxygen (O), and
(C) at least one layer consisting of SiO_2 on layer (B), wherein $0.70 \leq z \leq 2.0$, especially $1.10 \leq z \leq 2.0$, more especially $1.40 \leq z \leq 2.0$.
- 15 3. The pigment according to claim 1 or 2, comprising
(C1) a layer consisting of SiO_2 ,
(B) at least one layer, which is located between the layers (C1) and (C2), and consists of the metal, silicon (Si) and oxygen (O),
(C2) at least one layer consisting of SiO_2 on layer (B), wherein $0.70 \leq z \leq 2.0$,
20 especially $1.10 \leq z \leq 2.0$, more especially $1.40 \leq z \leq 2.0$.
4. The pigment according to claim 3, comprising
(D) an additional layer of a material having a high index of refraction, especially TiO_2 , amorphous carbon, diamond-like carbon, or silicon carbide.
- 25 5. The pigment according to claim 4, comprising
(D1) a layer of a material having a high index of refraction, especially TiO_2 ,
(C1) a layer consisting of SiO_2 ,
(B) at least one layer, which is located between the layers (C1) and (C2), and consists
30 of the metal, silicon (Si) and oxygen (O),
(C2) a layer consisting of SiO_2 , and
(D2) a layer of a material having a high index of refraction, especially TiO_2 , wherein $0.70 \leq z \leq 2.0$, especially $1.10 \leq z \leq 2.0$, more especially $1.40 \leq z \leq 2.0$.
- 35 6. The pigment according to any of claims 1 to 5, wherein the metal is selected from Ag, Al, Cu, Cr, Mo, Ni, Ti, or alloys thereof, especially aluminum.

7. The pigment according to claim 3 having the following layer structure:
TiO₂/SiO₂/core/SiO₂/TiO₂, wherein the core is formed of a layer (B) or of a layer
(B)/layer (A)/layer (B), wherein the layer (B) is present on the plane-parallel faces, but
not the side faces of layer (A), wherein the SiO₂ layer is only present on the plane-
parallel faces, but not the side faces and the TiO₂ layer is applied to the whole surface;
SiC/SiO₂/core/SiO₂/SiC, or C/SiO₂/core/SiO₂/C, wherein $0.70 \leq z \leq 2.0$, especially $1.10 \leq z \leq 2.0$, more especially $1.40 \leq z \leq 2.0$.
8. A pigment, obtainable by calcination of plane-parallel structures (flakes), comprising
(A) at least one layer consisting of a metal and (C) at least one layer consisting of SiO₂
with $0.70 \leq z \leq 2.0$, especially $1.1 \leq z \leq 2.0$, in a non-oxidizing atmosphere and
optionally coating of the obtained flakes with further layers.
9. Plane-parallel structures, comprising (A) a layer consisting of a metal, especially
aluminum, and (C) at least one layer consisting of SiO₂, wherein $0.70 \leq z \leq 2.0$,
especially $1.10 \leq z \leq 2.0$, more especially $1.40 \leq z \leq 2.0$.
10. Use of the pigment according to any of claims 1 to 8 in ink-jet printing, for dyeing
textiles, for pigmenting coatings, paints, printing inks, plastics, cosmetics, glazes for
ceramics and glass.
11. Composition, comprising a pigment according to any of claims 1 to 8.
12. Cosmetic preparation, paint, printing ink, or coating, comprising a pigment according to
any of claims 1 to 8.